Amendments to the Claims

The listing of claims presented below replaces all prior versions, and listings, of claims in the application.

The Applicant wishes to make the following amendments to the claims of the above patent application:

Listing of Claims

1 – 70 (cancelled)

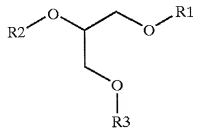
71. (currently amended) A method of ~~prevention and/or~~ treatment of insulin resistance, obesity, diabetes, fatty liver, hypercholesterolemia, dyslipidemia, atherosclerosis, coronary heart disease, thrombosis, stenosis, secondary stenosis, myocardial infarction, stroke, elevated blood pressure, endothelial dysfunction, procoagulant state, polycystic ovary syndrome, the metabolic syndrome, ~~cancer~~reducing the growth of cancer cells and/or inhibiting the metastasis of metastatic neoplasms, an inflammatory disorder, and a proliferate skin disorder comprising the administration of a pharmaceutical or nutritional composition comprising a combination of:

1) a protein material; and

2) one or more compounds comprising non β-oxidizable fatty acid entities represented by

(a) the general formula R''-COO-$(CH_2)_{2n+1}$-X-R', wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group; and R'' is a hydrogen atom or an alkyl group containing from 1 to 4 carbon atoms; and/or

(b) the general formula (I),



(I)

wherein R1, R2, and R3 represent

i) a hydrogen atom; or

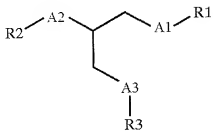
ii) a group having the formula CO-R in which R is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, and the main chain of said R contains from 1 to 25 carbon atoms; or

iii) a group having the formula $CO\text{-}(CH_2)_{2n+1}\text{-}X\text{-}R'$, wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group;

iv) an entity selected from the group comprising $-PO_3CH_2CHNH_3COOH$ (serine), $PO_3CH_2CH_2NH_3$ (ethanolamine), $PO_3CH_2CH_2N(CH_3)_3$ (choline), $PO_3CH_2CHOHCH_2OH$ (glycerol) and $PO_3(CHOH)_6$ (inositol);

wherein R1, R2, and R3 are chosen independently from i), ii), iii), or iv), but at least one of R1, R2, or R3 is defined by iii); and/or

(c) the general formula (II),



(II)

wherein A1, A2 and A3 are chosen independently and represent an oxygen atom, a sulphur atom or an N-R4 group in which R4 is a hydrogen atom or a linear or branched alkyl group, saturated or unsaturated, optionally substituted, containing from 1 to 5 carbon atoms;

wherein R1, R2, and R3 represent

i) a hydrogen atom or a linear or branched alkyl group, saturated or unsaturated, optionally substituted, containing from 1 to 23 carbon atoms; or

ii) a group having the formula CO-R in which R is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, and the main chain of said R contains from 1 to 25 carbon atoms; or

iii) a group having the formula $CO-(CH_2)_{2n+1}-X-R'$, wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group;

iv) an entity selected from the group comprising $-PO_3CH_2CHNH_3COOH$ (serine), $PO_3CH_2CH_2NH_3$ (ethanolamine), $PO_3CH_2CH_2N(CH_3)_3$ (choline), $PO_3CH_2CHOHCH_2OH$ (glycerol) and $PO_3(CHOH)_6$ (inositol);

wherein R1, R2, and R3 are chosen independently from i), ii), iii), or iv), but at least one of R1, R2, or R3 is defined by iii); and/or
a salt, prodrug or complex of the compounds according to (a)-(c).

72. (currently amended) Method according to claim 71, where said ~~prevention and/or~~ treatment of reducing the growth of cancer cells and/or inhibiting the metastasis of metastatic neoplasms ~~cancer~~ includes inhibition of: primary and secondary neoplasms, the growth of tumours, invasion of a primary tumour into connective tissue and formation of secondary tumours.

73. (previously presented) Method according to claim 71 where the inflammatory disorder is selected from the group comprising immune mediated disorders such as rheumatoid arthritis, systemic vasculitis, systemic lupus erythematosus, systemic sclerosis, dermatomyositis, polymyositis, various autoimmune endocrine disorders, various immune mediated neurological disorders, various cardiovascular disorders, inflammatory bowel diseases and Chron's disease, non specific colitis, pancreatitis, nephritis, cholestatis/fibrosis of the liver, and acute and chronic allograft rejection after organ transplantation, and diseases that have an inflammatory component .

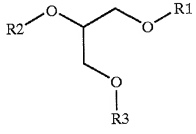
74. (currently amended) Method according to claim [[1]]71,where said proliferate skin disorder is selected from the group comprising psoriasis, atopic dermatitis, non-specific dermatitis, primary irritant contact-dermatitis, allergic contact-dermatitis, lamellar ichthyosis, epidermolytic hyperkeratoses, pre-malign sun-induced keratoses, and seborrhoea.

75. (previously presented) A method of improving the total body lipid composition of an animal comprising the administration or feeding of an animal feed comprising common feed components and a combination of:
1) a protein material; and

2) one or more compounds comprising non β-oxidizable fatty acid entities represented by

(a) the general formula R''-COO-$(CH_2)_{2n+1}$-X-R', wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group; and R'' is a hydrogen atom or an alkyl group containing from 1 to 4 carbon atoms; and/or

(b) the general formula (I),



(I)

wherein R1, R2, and R3 represent

i) a hydrogen atom; or

ii) a group having the formula CO-R in which R is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, and the main chain of said R contains from 1 to 25 carbon atoms; or

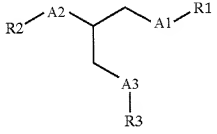
iii) a group having the formula CO-$(CH_2)_{2n+1}$-X-R', wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur

atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group;

iv) an entity selected from the group comprising $-PO_3CH_2CHNH_3COOH$ (serine), $PO_3CH_2CH_2NH_3$ (ethanolamine), $PO_3CH_2CH_2N(CH_3)_3$ (choline), $PO_3CH_2CHOHCH_2OH$ (glycerol) and $PO_3(CHOH)_6$ (inositol);

wherein R1, R2, and R3 are chosen independently from i), ii), iii), or iv), but at least one of R1, R2, or R3 is defined by iii); and/or

(c) the general formula (II),



(II)

wherein A1, A2 and A3 are chosen independently and represent an oxygen atom, a sulphur atom or an N-R4 group in which R4 is a hydrogen atom or a linear or branched alkyl group, saturated or unsaturated, optionally substituted, containing from 1 to 5 carbon atoms;

wherein R1, R2, and R3 represent

i) a hydrogen atom or a linear or branched alkyl group, saturated or unsaturated, optionally substituted, containing from 1 to 23 carbon atoms; or

ii) a group having the formula CO-R in which R is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, and the main chain of said R contains from 1 to 25 carbon atoms; or

iii) a group having the formula $CO-(CH_2)_{2n+1}-X-R'$, wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group,

saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group;

iv) an entity selected from the group comprising -$PO_3CH_2CHNH_3COOH$ (serine), $PO_3CH_2CH_2NH_3$ (ethanolamine), $PO_3CH_2CH_2N(CH_3)_3$ (choline), $PO_3CH_2CHOHCH_2OH$ (glycerol) and $PO_3(CHOH)_6$ (inositol);

wherein R1, R2, and R3 are chosen independently from i), ii), iii), or iv), but at least one of R1, R2, or R3 is defined by iii); and/or

a salt, prodrug or complex of the compounds according to (a)-(c).

76. (previously presented) Method according to claim 75 where the improvement of the total lipid composition comprises decreasing the total body lipid levels.

77. (previously presented) Method according to claim 75 where the improvement of the total lipid composition comprises decreasing the total body saturated fatty acid levels.

78. (previously presented) Method according to claim 75 where the improvement of the total lipid composition comprises increasing the total body n-3 fatty acid levels.

79. (previously presented) Method according to claim 71, wherein said protein material is fermented.

80. (previously presented) Method according to claim 75, wherein said protein material is fermented.

81. (previously presented) Method according to claim 71, wherein said protein material is a single cell protein material (SCP).

82. (previously presented) Method according to claim 75, wherein said protein material is a single cell protein material (SCP).

83. (previously presented) Method according to claim 71, wherein said protein material is a fish protein hydrolysate.

84. (previously presented) Method according to claim 75, wherein said protein material is a fish protein hydrolysate.

85. (previously presented) Method according to claim 71, where said protein material is soy protein.

86. (previously presented) Method according to claim 75, where said protein material is soy protein.

87. (previously presented) Method according to claim 71, wherein said protein material is a fermented soy protein material.

88. (previously presented) Method according to claim 75, wherein said protein material is a fermented soy protein material.

89. (currently amended) Method according to claim 71, wherein said protein material is GENDAXIN® (isoflavone concentrate) ~~Gendaxin®~~.

90. (currently amended) Method according to claim 75, wherein said protein material is GENDAXIN® (isoflavone concentrate)~~Gendaxin®~~.

91. (previously presented) Method according to claim 71, where the compound(s) comprising a non β-oxidizable fatty acid entity are non β-oxidizable fatty acids.

92. (previously presented) Method according to claim 75, where the compound(s) comprising a non β-oxidizable fatty acid entity are non β-oxidizable fatty acids.

93. (previously presented) Method according to claim 71, where the compound(s) comprising a non β-oxidizable fatty acid entity are tetradecylthioacetic acid (TTA), tetradecylselenoacetic acid and/or 3-Thia-15-heptadecyne.

94. (previously presented) Method according to claim 75, where the compound(s) comprising a non β-oxidizable fatty acid entity are tetradecylthioacetic acid (TTA), tetradecylselenoacetic acid and/or 3-Thia-15-heptadecyne.

95. (previously presented) Method according to claim 71, where X is a sulphur atom or a selenium atom.

96. (previously presented) Method according to claim 75, where X is a sulphur atom or a selenium atom.

97. (previously presented) Method according to claim 71, where the compound(s) comprising a non β-oxidizable fatty acid entity is a phospholipid, wherein said phospholipid is selected from the group comprising phosphatidyl serine, phosphatidyl choline, phosphatidyl ethanolamine, phosphatidyl inositol, phosphatidyl glycerol, and/or diphosphatidyl glycerol.

98. (previously presented) Method according to claim 75, where the compound(s) comprising a non β-oxidizable fatty acid entity is a phospholipid, wherein said phospholipid is selected from the group comprising phosphatidyl serine, phosphatidyl choline, phosphatidyl ethanolamine, phosphatidyl inositol, phosphatidyl glycerol, and/or diphosphatidyl glycerol.

99. (previously presented) Method according to claim 71, where the compound comprising a non β-oxidizable fatty acid entity is the phosphatidyl choline derivative 1,2-ditetradecylthioacetoyl-*sn*-glycero-3-phosphocholine.

100. (previously presented) Method according to claim 75, where the compound comprising a non β-oxidizable fatty acid entity is the phosphatidyl choline derivative 1,2-ditetradecylthioacetoyl-*sn*-glycero-3-phosphocholine.

101. (previously presented) Method according to claim 71, where the compound comprising a non β-oxidizable fatty acid entity is the phosphatidyl ethanolamine derivative 1,2-ditetradecylthioacetoyl-*sn*-glycero-3-phosphoethanolamine.

102. (previously presented) Method according to claim 75, where the compound comprising a non β-oxidizable fatty acid entity is the phosphatidyl ethanolamine derivative 1,2-ditetradecylthioacetoyl-*sn*-glycero-3-phosphoethanolamine.

103. (previously presented) Method according to claim 71, where the compound(s) comprising a non β-oxidizable fatty acid entity are mono-, di- or tri-acylglycerides.

104. (previously presented) Method according to claim 75, where the compound(s) comprising a non β-oxidizable fatty acid entity are mono-, di- or tri-acylglycerides.

105. (previously presented) Method according to claim 71, where the compound(s) comprising a non β-oxidizable fatty acid entity are tri-acylglycerides comprising tetradecylthioacetic acid (TTA).

106. (previously presented) Method according to claim 75, where the compound(s) comprising a non β-oxidizable fatty acid entity are tri-acylglycerides comprising tetradecylthioacetic acid (TTA).

107. (previously presented) Method according to claim 71, wherein the composition or animal feed further comprises a plant and/or fish oil.

108. (previously presented) Method according to claim 75, wherein the composition or animal feed further comprises a plant and/or fish oil.

109. (currently amended) A method of ~~prevention and/or~~ treatment of hypercholesterolemia and conditions negatively effected by high cholesterol levels, insulin resistance, obesity, diabetes, fatty liver, dyslipidemia, atherosclerosis, coronary heart disease, thrombosis, stenosis, secondary stenosis, myocardial infarction, stroke, elevated blood pressure, endothelial dysfunction, procoagulant state, polycystic ovary syndrome, the metabolic syndrome, reducing the growth of cancer cells and/or inhibiting the metastasis of metastatic neoplasms~~cancer~~, inflammatory disorders and proliferate skin disorders comprising the administration of a preparation comprising a combination of:

1) a protein material, and
2) a plant or fish oil,

wherein the protein material is chosen from the group comprising single cell protein material (SCP), fish protein hydrolysate, and a fermented soy protein material.

110. (currently amended) Method according to claim 109, wherein said protein material is GENDAXIN® (isoflavone concentrate)~~Gendaxin®~~.

111. (previously presented) Method according to claim 107, where the plant or fish oil comprise polyunsaturated fatty acids.

112. (previously presented) Method according to claim 108, where the plant or fish oil comprise polyunsaturated fatty acids.

113. (previously presented) Method according to claim 109, where the plant or fish oil comprise polyunsaturated fatty acids.

114. (previously presented) Method according to claim 107, where the plant oil is selected from the group comprising sunflower oil, soy oil and olive oil.

115. (previously presented) Method according to claim 108, where the plant oil is selected from the group comprising sunflower oil, soy oil and olive oil.

116. (previously presented) Method according to claim 109, where the plant oil is selected from the group comprising sunflower oil, soy oil and olive oil.

117. (currently amended) Method according to claim 109, where said ~~prevention and/or~~ treatment of reducing the growth of cancer cells and/or inhibiting the metastasis of metastatic neoplasms~~cancer~~ includes inhibition of: primary and secondary neoplasms, the growth of tumours, invasion of a primary tumour into connective tissue and formation of secondary tumours.

118. (previously presented) Method according to claim 109, where the inflammatory disorder is selected from the group comprising immune mediated disorders such as rheumatoid arthritis, systemic vasculitis, systemic lupus erythematosus, systemic sclerosis, dermatomyositis, polymyositis, various autoimmune endocrine disorders, various immune mediated neurological disorders, various cardiovascular disorders, inflammatory bowel diseases and Chron's disease, non specific colitis, pancreatitis, nephritis, cholestatis/fibrosis of the liver, and acute and chronic allograft rejection after organ transplantation, and diseases that have an inflammatory component.

119. (previously presented) Method according to claim 109, where said proliferate skin disorder is selected from the group comprising psoriasis, atopic dermatitis, non-

specific dermatitis, primary irritant contact-dermatitis, allergic contact-dermatitis, lamellar ichthyosis, epidermolytic hyperkeratoses, pre-malign sun-induced keratoses, and seborrhoea.

120. (previously presented) Method according to claim 71, wherein said composition is administered or fed to an animal.

121. (previously presented) Method according to claim 109, wherein said composition is administered or fed to an animal.

122. (previously presented) Method according to claim 75, wherein said animal is a human.

123. (previously presented) Method according to claim 120, wherein said animal is a human.

124. (previously presented) Method according to claim 121, wherein said animal is a human.

125. (previously presented) Method according to claim 75, wherein said animal is an agricultural animal.

126. (previously presented) Method according to claim 120, wherein said animal is an agricultural animal.

127. (previously presented) Method according to claim 121, wherein said animal is an agricultural animal.

128. (previously presented) Method according to claim 75, wherein said animal is a domestic or pet animal.

129. (previously presented) Method according to claim 120, wherein said animal is a domestic or pet animal.

130. (previously presented) Method according to claim 121, wherein said animal is a domestic or pet animal.

131. (previously presented) Method according to claim 75, wherein said animal is a fish or shellfish.

132. (previously presented) Method according to claim 120, wherein said animal is a fish or shellfish.

133. (previously presented) Method according to claim 121, wherein said animal is a fish or shellfish.

134. (previously presented) Method according to claim 71, where the compounds comprising non β-oxidizable fatty acid entities comprise a daily dosage of about 1 – 200 mg/kg for human consumption, and about 1 – 2000 mg/kg for animal consumption.

135. (previously presented) Method according to claim 75, where the compounds comprising non β-oxidizable fatty acid entities comprise a daily dosage of about 1 – 200 mg/kg for human consumption, and about 1 – 2000 mg/kg for animal consumption.

136. (previously presented) Method according to claim 71, where the protein material comprise a daily dosage of about 5 – 500 mg/kg for human consumption, and from 5 mg/kg up to the total daily protein consumption for animal consumption.

137. (previously presented) Method according to claim 75, where the protein material comprise a daily dosage of about 5 – 500 mg/kg for human consumption, and from 5 mg/kg up to the total daily protein consumption for animal consumption.

138. (previously presented) Method according to claim 109, where the protein material comprise a daily dosage of about 5 – 500 mg/kg for human consumption, and from 5 mg/kg up to the total daily protein consumption for animal consumption.

139. (previously presented) Method according to claim 107, where the oil comprise a daily dosage of about 1 – 300 mg/kg for human consumption, and from 1 mg/kg up to the total daily fat consumption for animal consumption.

140. (previously presented) Method according to claim 108, where the oil comprise a daily dosage of about 1 – 300 mg/kg for human consumption, and from 1 mg/kg up to the total daily fat consumption for animal consumption.

141. (previously presented) Method according to claim 109, where the oil comprise a daily dosage of about 1 – 300 mg/kg for human consumption, and from 1 mg/kg up to the total daily fat consumption for animal consumption.

142. (previously presented) Method according to claim 75, where the animal feed is at least one selected from the group comprising a nutritional composition, veterinary composition, and a functional food product.

143. (previously presented) A composition, comprising a combination of:

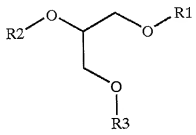
1) a protein material; and

2) one or more compounds comprising non β-oxidizable fatty acid entities represented by

(a) the general formula R''-COO-$(CH_2)_{2n+1}$-X-R', wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an

integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group; and R" is a hydrogen atom or an alkyl group containing from 1 to 4 carbon atoms; and/or

(b) the general formula (I),



(I)

wherein R1, R2, and R3 represent

i) a hydrogen atom; or

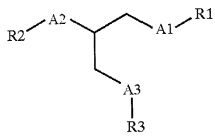
ii) a group having the formula CO-R in which R is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, and the main chain of said R contains from 1 to 25 carbon atoms; or

iii) a group having the formula $CO-(CH_2)_{2n+1}-X-R'$, wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group;

iv) an entity selected from the group comprising $-PO_3CH_2CHNH_3COOH$ (serine), $PO_3CH_2CH_2NH_3$ (ethanolamine), $PO_3CH_2CH_2N(CH_3)_3$ (choline), $PO_3CH_2CHOHCH_2OH$ (glycerol) and $PO_3(CHOH)_6$ (inositol);

wherein R1, R2, and R3 are chosen independently from i), ii), iii), or iv), but at least one of R1, R2, or R3 is defined by iii); and/or

(c) the general formula (II),



(II)

wherein A1, A2 and A3 are chosen independently and represent an oxygen atom, a sulphur atom or an N-R4 group in which R4 is a hydrogen atom or a linear or branched alkyl group, saturated or unsaturated, optionally substituted, containing from 1 to 5 carbon atoms;

wherein R1, R2, and R3 represent

i) a hydrogen atom or a linear or branched alkyl group, saturated or unsaturated, optionally substituted, containing from 1 to 23 carbon atoms; or

ii) a group having the formula CO-R in which R is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, and the main chain of said R contains from 1 to 25 carbon atoms; or

iii) a group having the formula $CO-(CH_2)_{2n+1}-X-R'$, wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more

heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group;

iv) an entity selected from the group comprising $-PO_3CH_2CHNH_3COOH$ (serine), $PO_3CH_2CH_2NH_3$ (ethanolamine), $PO_3CH_2CH_2N(CH_3)_3$ (choline), $PO_3CH_2CHOHCH_2OH$ (glycerol) and $PO_3(CHOH)_6$ (inositol);

wherein R1, R2, and R3 are chosen independently from i), ii), iii), or iv), but at least one of R1, R2, or R3 is defined by iii); and/or

a salt, prodrug or complex of the compounds according to (a)-(c)

144. (previously presented) Composition according to claim 143, wherein said protein material is fermented.

145. (previously presented) Composition according to claim 143, wherein said protein material is a single cell protein material (SCP).

146. (previously presented) Composition according to claim 143, wherein said protein material is a fish protein hydrolysate.

147. (previously presented) Composition according to claim 143, where said protein material is soy protein.

148. (previously presented) Composition according to claim 147, wherein said protein material is a fermented soy protein material.

149. (currently amended) Composition according to claim 148, wherein said soy protein material is GENDAXIN® (isoflavone concentrate)~~Gendaxin®~~.

150. (previously presented) Composition according to claim 143, where the composition comprise a daily dosage of a compound comprising a non β-oxidizable

fatty acid analogue of about 1 – 200 mg/kg for human consumption, and about 1 – 2000 mg/kg for animal consumption.

151. (previously presented) Composition according to claim 143, wherein the composition further comprises a plant and/or fish oil.

152. (previously presented) Composition according to claim 143, where the compound(s) comprising a non β-oxidizable fatty acid entity are non β-oxidizable fatty acids.

153. (previously presented) Composition according to claim 152, where the compound(s) comprising a non β-oxidizable fatty acid entity are tetradecylthioacetic acid (TTA), tetradecylselenoacetic acid and/or 3-Thia-15-heptadecyne.

154. (previously presented) Composition according to claim 143, where X is a sulphur atom or a selenium atom.

155. (previously presented) Composition according to claim 143, where the compound(s) comprising a non β-oxidizable fatty acid entity is a phospholipid, wherein said phospholipid is selected from the group comprising phosphatidyl serine, phosphatidyl choline, phosphatidyl ethanolamine, phosphatidyl inositol, phosphatidyl glycerol, and/or diphosphatidyl glycerol.

156. (previously presented) Composition according to claim 143, where the compound comprising a non β-oxidizable fatty acid entity is the phosphatidyl choline derivative 1,2-ditetradecylthioacetoyl-*sn*-glycero-3-phosphocholine.

157. (previously presented) Composition according to claim 143, where the compound comprising a non β-oxidizable fatty acid entity is the phosphatidyl

ethanolamine derivative 1,2-ditetradecylthioacetoyl-*sn*-glycero-3-phosphoethanolamine.

158. (previously presented) Composition according to claim 143, where the compound(s) comprising a non β-oxidizable fatty acid entity are mono-, di- or tri-acylglycerides.

159. (previously presented) Composition according to claim 158, where the compound(s) comprising a non β-oxidizable fatty acid entity are tri-acylglycerides comprising tetradecylthioacetic acid (TTA).

160. (previously presented) A composition comprising a combination of:
1) a protein material, and
2) a plant or fish oil,
wherein the protein material is chosen from the group comprising single cell protein material (SCP), fish protein hydrolysate, or a fermented soy protein material.

161. (currently amended) Method according to claim 160, wherein said protein material is GENDAXIN® (isoflavone concentrate) ~~Gendaxin®~~.

162. (previously presented) Composition according to claim 143, where the plant or fish oil comprise polyunsaturated fatty acids.

163. (previously presented) Composition according to claim 160, where the plant or fish oil comprise polyunsaturated fatty acids.

164. (previously presented) Composition according to claim 160, where the plant oil is selected from the group comprising sunflower oil, soy oil and olive oil.

165. (previously presented) Composition according to claim 143, where the composition comprises a daily dosage of protein material of about 5 – 500 mg/kg for human consumption, and from 5 mg/kg up to the total daily protein consumption for animal consumption.

166. (previously presented) Composition according to claim 160, where the composition comprises a daily dosage of protein material of about 5 – 500 mg/kg for human consumption, and from 5 mg/kg up to the total daily protein consumption for animal consumption.

167. (previously presented) Composition according to claim 143, where the composition comprises a daily dosage of oil of about 1 – 300 mg/kg for human consumption, and from 1 mg/kg up to the total daily fat consumption for animal consumption.

168. (previously presented) Composition according to claim 160, where the composition comprises a daily dosage of oil of about 1 – 300 mg/kg for human consumption, and from 1 mg/kg up to the total daily fat consumption for animal consumption.

169. (previously presented) Composition according to claim 143, wherein the composition is an animal feed further comprising common feed components.

170. (previously presented) Composition according to claim 160, wherein the composition is an animal feed further comprising common feed components.

171. (previously presented) Composition according to claim 143, wherein the animal feed is a fish feed.

172. (previously presented) Composition according to claim 160, wherein the animal feed is a fish feed.

previously presented

173. (previously presented) Composition according to claim 143, where the fish feed is salmon feed.

174. (previously presented) Composition according to claim 160, where the fish feed is salmon feed.

175. (previously presented) Composition according to claim 143, where the common feed components comprise fishmeal and/or fish oil.

176. (previously presented) Composition according to claim 160, where the common feed components comprise fishmeal and/or fish oil.

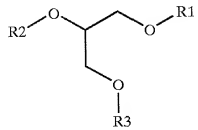
~~178~~177. (currently amended) Method for producing an animal based product with improved fatty acid composition, comprising of feeding the animal from which the product is to be produced with an animal feed comprising common feed components and a combination of:

1) a protein material; and

2) one or more compounds comprising non β-oxidizable fatty acid entities represented by

(a) the general formula R''-COO-$(CH_2)_{2n+1}$-X-R', wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group; and R'' is a hydrogen atom or an alkyl group containing from 1 to 4 carbon atoms; and/or

(b) the general formula (I),



(I)

wherein R1, R2, and R3 represent

i) a hydrogen atom; or

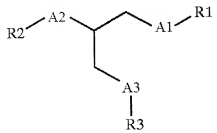
ii) a group having the formula CO-R in which R is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, and the main chain of said R contains from 1 to 25 carbon atoms; or

iii) a group having the formula $CO-(CH_2)_{2n+1}-X-R'$, wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group;

iv) an entity selected from the group comprising $-PO_3CH_2CHNH_3COOH$ (serine), $PO_3CH_2CH_2NH_3$ (ethanolamine), $PO_3CH_2CH_2N(CH_3)_3$ (choline), $PO_3CH_2CHOHCH_2OH$ (glycerol) and $PO_3(CHOH)_6$ (inositol);

wherein R1, R2, and R3 are chosen independently from i), ii), iii), or iv), but at least one of R1, R2, or R3 is defined by iii); and/or

(c) the general formula (II),



(II)

wherein A1, A2 and A3 are chosen independently and represent an oxygen atom, a sulphur atom or an N-R4 group in which R4 is a hydrogen atom or a linear or branched alkyl group, saturated or unsaturated, optionally substituted, containing from 1 to 5 carbon atoms;

wherein R1, R2, and R3 represent

i) a hydrogen atom or a linear or branched alkyl group, saturated or unsaturated, optionally substituted, containing from 1 to 23 carbon atoms; or

ii) a group having the formula CO-R in which R is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, and the main chain of said R contains from 1 to 25 carbon atoms; or

iii) a group having the formula $CO-(CH_2)_{2n+1}-X-R'$, wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group;

iv) an entity selected from the group comprising $-PO_3CH_2CHNH_3COOH$ (serine), $PO_3CH_2CH_2NH_3$ (ethanolamine), $PO_3CH_2CH_2N(CH_3)_3$ (choline), $PO_3CH_2CHOHCH_2OH$ (glycerol) and $PO_3(CHOH)_6$ (inositol);

wherein R1, R2, and R3 are chosen independently from i), ii), iii), or iv), but at least one of R1, R2, or R3 is defined by iii); and/or

a salt, prodrug or complex of the compounds according to (a)-(c)

~~179~~178. (currently amended) Method for producing an animal based product with improved fatty acid composition, comprising of feeding the animal from which the product is to be produced with an animal feed comprising common feed components and a protein material and optionally a non β-oxidizable fatty acid analogue.

~~180~~179. (currently amended) Method according to claim ~~178~~177, wherein the animal feed further comprises fermented soy protein material.

~~181~~180. (currently amended) Method according to claim ~~179~~178, wherein the animal feed further comprises fermented soy protein material.

~~182~~181. (currently amended) Method according to claim ~~178~~177, where the animal based product is a meat product.

~~183~~182. (currently amended) Method according to claim ~~179~~178, where the animal based product is a meat product.

~~184~~183. (currently amended) Method according to claim ~~178~~177, where the animal based product is an oil based product.

~~185~~184. (currently amended) Method according to claim ~~179~~178, where the animal based product is an oil based product.

~~186~~185. (currently amended) Method according to claim ~~178~~177, where the animal based product is a skin based product.

~~187~~186. (currently amended) Method according to claim ~~179~~178, where the animal based product is a skin based product.

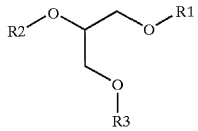
187. (new) A method of prevention of insulin resistance, obesity, diabetes, fatty liver, hypercholesterolemia, dyslipidemia, atherosclerosis, coronary heart disease, thrombosis, stenosis, secondary stenosis, myocardial infarction, stroke, elevated blood pressure, endothelial dysfunction, procoagulant state, polycystic ovary syndrome, the metabolic syndrome, reducing the growth of cancer cells and/or inhibiting the metastasis of metastatic neoplasms, an inflammatory disorder, and a proliferate skin disorder comprising the administration of a pharmaceutical or nutritional composition comprising a combination of:

1) a protein material; and

2) one or more compounds comprising non β-oxidizable fatty acid entities represented by

(a) the general formula R''-COO-$(CH_2)_{2n+1}$-X-R', wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group; and R'' is a hydrogen atom or an alkyl group containing from 1 to 4 carbon atoms; and/or

(b) the general formula (I),



(I)

wherein R1, R2, and R3 represent

i) a hydrogen atom; or

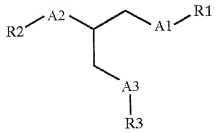
ii) a group having the formula CO-R in which R is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, and the main chain of said R contains from 1 to 25 carbon atoms; or

iii) a group having the formula $CO-(CH_2)_{2n+1}-X-R'$, wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group;

iv) an entity selected from the group comprising $-PO_3CH_2CHNH_3COOH$ (serine), $PO_3CH_2CH_2NH_3$ (ethanolamine), $PO_3CH_2CH_2N(CH_3)_3$ (choline), $PO_3CH_2CHOHCH_2OH$ (glycerol) and $PO_3(CHOH)_6$ (inositol);

wherein R1, R2, and R3 are chosen independently from i), ii), iii), or iv), but at least one of R1, R2, or R3 is defined by iii); and/or

(c) the general formula (II),



(II)

wherein A1, A2 and A3 are chosen independently and represent an oxygen atom, a sulphur atom or an N-R4 group in which R4 is a hydrogen atom or a linear or branched alkyl group, saturated or unsaturated, optionally substituted, containing from 1 to 5 carbon atoms;

wherein R1, R2, and R3 represent

i) a hydrogen atom or a linear or branched alkyl group, saturated or unsaturated, optionally substituted, containing from 1 to 23 carbon atoms; or

ii) a group having the formula CO-R in which R is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, and the main chain of said R contains from 1 to 25 carbon atoms; or

iii) a group having the formula $CO\text{-}(CH_2)_{2n+1}\text{-}X\text{-}R'$, wherein X is a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group or a SO_2 group; n is an integer of 0 to 11; and R' is a linear or branched alkyl group, saturated or unsaturated, optionally substituted, wherein the main chain of said R' contains from 13 to 23 carbon atoms and optionally one or more heterogroups selected from the group comprising an oxygen atom, a sulphur atom, a selenium atom, an oxygen atom, a CH_2 group, a SO group and a SO_2 group;

iv) an entity selected from the group comprising $-PO_3CH_2CHNH_3COOH$ (serine), $PO_3CH_2CH_2NH_3$ (ethanolamine), $PO_3CH_2CH_2N(CH_3)_3$ (choline), $PO_3CH_2CHOHCH_2OH$ (glycerol) and $PO_3(CHOH)_6$ (inositol);

wherein R1, R2, and R3 are chosen independently from i), ii), iii), or iv), but at least one of R1, R2, or R3 is defined by iii); and/or
a salt, prodrug or complex of the compounds according to (a)-(c).

188. (new) Method according to claim 187, where said prevention of the growth of cancer cells and/or inhibiting the metastasis of metastatic neoplasms includes inhibition of: primary and secondary neoplasms, the growth of tumours, invasion of a primary tumour into connective tissue and formation of secondary tumours.

189. (new) Method according to claim 187 where the inflammatory disorder is selected from the group comprising immune mediated disorders such as rheumatoid arthritis, systemic vasculitis, systemic lupus erythematosus, systemic sclerosis, dermatomyositis, polymyositis, various autoimmune endocrine disorders, various immune mediated neurological disorders, various cardiovascular disorders, inflammatory bowel diseases and Chron's disease, non specific colitis, pancreatitis, nephritis, cholestatis/fibrosis of the liver, and acute and chronic allograft rejection after organ transplantation, and diseases that have an inflammatory component .

190. (new) Method according to claim 187,where said proliferate skin disorder is selected from the group comprising psoriasis, atopic dermatitis, non-specific dermatitis, primary irritant contact-dermatitis, allergic contact-dermatitis, lamellar ichthyosis, epidermolytic hyperkeratoses, pre-malign sun-induced keratoses, and seborrhoea.

191. (new) Method according to claim 187, wherein said protein material is fermented.

192. (new) Method according to claim 187, wherein said protein material is a single cell protein material (SCP).

193. (new) Method according to claim 187, where said protein material is soy protein.

194. (new) Method according to claim 187, wherein said protein material is GENDAXIN® (isoflavone concentrate).

195. (new) Method according to claim 187, where the compound(s) comprising a non β-oxidizable fatty acid entity are non β-oxidizable fatty acids.

196. (new) Method according to claim 187, where the compound(s) comprising a non β-oxidizable fatty acid entity are tetradecylthioacetic acid (TTA), tetradecylselenoacetic acid and/or 3-Thia-15-heptadecyne.

197. (new) Method according to claim 187, where X is a sulphur atom or a selenium atom.

198. (new) Method according to claim 187, where the compound(s) comprising a non β-oxidizable fatty acid entity is a phospholipid, wherein said phospholipid is selected from the group comprising phosphatidyl serine, phosphatidyl choline, phosphatidyl ethanolamine, phosphatidyl inositol, phosphatidyl glycerol, and/or diphosphatidyl glycerol.

199. (new) Method according to claim 187, where the compound comprising a non β-oxidizable fatty acid entity is the phosphatidyl choline derivative 1,2-ditetradecylthioacetoyl-*sn*-glycero-3-phosphocholine.

200. (new) Method according to claim 187, where the compound comprising a non β-oxidizable fatty acid entity is the phosphatidyl ethanolamine derivative 1,2-ditetradecylthioacetoyl-*sn*-glycero-3-phosphoethanolamine.

201. (new) Method according to claim 187, where the compound(s) comprising a non β-oxidizable fatty acid entity are tri-acylglycerides comprising tetradecylthioacetic acid (TTA).

202. (new) Method according to claim 187, wherein the composition or animal feed further comprises a plant and/or fish oil.

203. (new) A method of prevention of hypercholesterolemia and conditions negatively effected by high cholesterol levels, insulin resistance, obesity, diabetes, fatty liver, dyslipidemia, atherosclerosis, coronary heart disease, thrombosis, stenosis, secondary stenosis, myocardial infarction, stroke, elevated blood pressure, endothelial dysfunction, procoagulant state, polycystic ovary syndrome, the metabolic syndrome, reducing the growth of cancer cells and/or inhibiting the metastasis of metastatic neoplasms, inflammatory disorders and proliferate skin disorders comprising the administration of a preparation comprising a combination of:

1) a protein material, and

2) a plant or fish oil,

wherein the protein material is chosen from the group comprising single cell protein material (SCP), fish protein hydrolysate, and a fermented soy protein material.

204. (new) Method according to claim 203, wherein said protein material is GENDAXIN® (isoflavone concentrate).

205. (new) Method according to claim 202, where the plant or fish oil comprise polyunsaturated fatty acids.

206. (new) Method according to claim 203, where the plant or fish oil comprise polyunsaturated fatty acids.

207. (new) Method according to claim 202, where the plant oil is selected from the group comprising sunflower oil, soy oil and olive oil.

208. (new) Method according to claim 203, where the plant oil is selected from the group comprising sunflower oil, soy oil and olive oil.

209. (new) Method according to claim 203, where said prevention of the growth of cancer cells and/or inhibiting the metastasis of metastatic neoplasms includes inhibition of: primary and secondary neoplasms, the growth of tumours, invasion of a primary tumour into connective tissue and formation of secondary tumours.

210. (new) Method according to claim 203, where the inflammatory disorder is selected from the group comprising immune mediated disorders such as rheumatoid arthritis, systemic vasculitis, systemic lupus erythematosus, systemic sclerosis, dermatomyositis, polymyositis, various autoimmune endocrine disorders, various immune mediated neurological disorders, various cardiovascular disorders, inflammatory bowel diseases and Chron's disease, non specific colitis, pancreatitis, nephritis, cholestatis/fibrosis of the liver, and acute and chronic allograft rejection after organ transplantation, and diseases that have an inflammatory component.

211. (new) Method according to claim 203, where said proliferate skin disorder is selected from the group comprising psoriasis, atopic dermatitis, non-specific dermatitis, primary irritant contact-dermatitis, allergic contact-dermatitis, lamellar ichthyosis, epidermolytic hyperkeratoses, pre-malign sun-induced keratoses, and seborrhoea.

212. (new) Method according to claim 187, wherein said composition is administered or fed to an animal.

213. (new) Method according to claim 203, wherein said composition is administered or fed to an animal.

214. (new) Method according to claim 212, wherein said animal is a human.

215. (new) Method according to claim 213, wherein said animal is a human.

216. (new) Method according to claim 212, wherein said animal is an agricultural animal.

217. (new) Method according to claim 213, wherein said animal is an agricultural animal.

218. (new) Method according to claim 213, wherein said animal is a domestic or pet animal.

219. (new) Method according to claim 212, wherein said animal is a fish or shellfish.

220. (new) Method according to claim 213, wherein said animal is a fish or shellfish.

221. (new) Method according to claim 187, where the compounds comprising non β-oxidizable fatty acid entities comprise a daily dosage of about 1 – 200 mg/kg for human consumption, and about 1 – 2000 mg/kg for animal consumption.

222. (new) Method according to claim 187, where the protein material comprise a daily dosage of about 5 – 500 mg/kg for human consumption, and from 5 mg/kg up to the total daily protein consumption for animal consumption.

223. (new) Method according to claim 203, where the protein material comprise a daily dosage of about 5 – 500 mg/kg for human consumption, and from 5 mg/kg up to the total daily protein consumption for animal consumption.

224. (new) Method according to claim 202, where the oil comprise a daily dosage of about 1 – 300 mg/kg for human consumption, and from 1 mg/kg up to the total daily fat consumption for animal consumption.

225. (new) Method according to claim 203, where the oil comprise a daily dosage of about 1 – 300 mg/kg for human consumption, and from 1 mg/kg up to the total daily fat consumption for animal consumption.